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Grad takes his computer science degree back to the family farm

Edmonton—Zak Kotelko planned on doing a general science degree but then he took a computer science course and his plans changed. “I had never really done anything with computers before university, but as soon as I tried programming, I really liked it,” said Kotelko. “I think it’s the idea that you’re creating something out of nothing that appeals to me.”

The farm that Kotelko grew up on is a multi-generation family operation that covers more than 5,000 acres and has 35,000 cattle. “There’s a lot of technology involved in farming, but I didn’t really see the potential for how I could apply computer science on the farm until later in my degree,” added Kotelko. It was when it came time for his final project that he began thinking about the possibilities.

“When my brother is out harvesting or working in a field, he takes notes on paper to keep track of what he’s doing; that’s time consuming and things can get messy if you lose your notes,” said Kotelko. “I thought I could develop an app for that aspect of farming.” So he built one. He says the app still needs a little work, but soon his brother will trade his notepad for a tablet or smartphone and track what he’s doing in the field while he’s actually there. “When he enters the data it will sync up with the desktop system in the office, giving his dad an up-to-date picture of exactly what is happening in the field,” added Kotelko.

The possibilities he sees to integrate computer science with agriculture don’t end there. He has several apps in mind that he would like to develop, including one that would extend the use of the RFID (radio-frequency identification) tags on all of the cattle.

These days Kotelko is honing his skills while he works full time in Vegreville and in the long term he sees himself taking over the farm with his brother. “I really want to get some real-world experience first, but there are so many ideas for things we could do on the farm with technology, it’s actually kind of limitless when you think about it,” said Kotelko.

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